

REMARKS

Applicant has reviewed and considered the Office Action mailed on July 3, 2008, and the references cited therewith. Claims 1 and 30 are amended, and no claims are canceled or added; as a result, claims 1-3, 7, 8, 10-12, and 30-33 are now pending in this application.

35 USC § 103 Rejection of the Claims

Claims 1-3, 7-8, 10-12 and 30-33 were rejected under 35 USC § 103(a) as being unpatentable over Fukazu et al. (U.S. Publication No. 2002/0011327) or Gottmann et al. (U.S. Publication No. 2003/0157386) in view of Thomas et al. (U.S. Patent No. 5,752,011). Independent claims 1 and 30 have been amended to overcome this rejection.

The examiner alleges that certain functional limitations in the independent claims amount to statements of intended use. The examiner has not given patentable weight to the functional limitations, because, in his words, “[t]he intended use limitation does not result in a structural difference between the claimed invention and the prior art.” Specifically, the claim 1 limitation “a power management control block to control an operating frequency of the microprocessor in response to the temperature” and the claim 30 limitation “a power management control block to control a voltage provided to the integrated circuit in response to the temperature” have not been given patentable weight.

Independent claims 1 and 30 have been amended to once again be in means plus function format, thereby invoking 35 USC § 112, sixth paragraph. Applicants respectfully submit that the functional limitations should now be given patentable weight because:

1. 35 USC § 112, sixth paragraph has been invoked;
2. The application as filed satisfies the 35 USC § 112, second paragraph definiteness requirement for the claim limitations that invoke 35 USC § 112, sixth paragraph;
3. The application as filed satisfies the 35 USC § 112, first paragraph written description requirement for the claim limitations that invoke 35 USC § 112, sixth paragraph; and
4. The application as filed satisfies the 35 USC § 112, first paragraph enablement requirement for the claim limitations that invoke 35 USC § 112, sixth paragraph.

Applicants further respectfully submit that the claimed invention defines over the references of record because the references of record do not disclose, teach, or suggest the 35 USC § 112, sixth paragraph limitations recited in the claims.

35 USC § 112, sixth paragraph has been invoked

A claim limitation will be interpreted to invoke 35 USC § 112, sixth paragraph, if it meets the following 3-prong analysis: (A) the claim limitations must use the phrase “means for” or “step for;” (B) the “means for” or “step for” must be modified by functional language; and (C) the phrase “means for” or “step for” must not be modified by sufficient structure, material or acts for achieving the specified function. See MPEP § 2181.I.

Claim 1 as amended includes the limitation “means for controlling an operating frequency of the microprocessor in response to the temperature”; and claim 30 as amended includes the limitation “means for controlling a voltage provided to the integrated circuit in response to the temperature”. Applicants respectfully submit that the amended limitations in claims 1 and 30 meet the 3-prong analysis above, and that 35 USC § 112 has been invoked as a result.

The application as filed satisfies the 35 USC § 112, second paragraph definiteness requirement for the claim limitations that invoke 35 USC § 112, sixth paragraph

The proper test for meeting the definiteness requirement is that the corresponding structure (or material or acts) of a means (or step)-plus-function limitation must be disclosed in the specification itself in a way that one skilled in the art will understand what structure (or material or acts) will perform the recited function. See *Atmel Corp. v. Information Storage Devices, Inc.*, 198.F3d 1373, 1381, 53 USPQ2d 1225, 1230 (Fed. Cir. 1999); See also MPEP § 2181.II.

Power management control block 410 is disclosed in the specification as performing the recited functions. “[I]f one or more temperatures are high, then power management control block 410 may increase the flow rate of cooling pump 104, increase the speed of fan 106, reduce the voltage of processor 450, reduce the operating frequency of processor 450, reduce the rate of fuel delivery pump 126, or any combination.” See pg. 7, ll. 15-19.

The application as filed satisfies the 35 USC § 112, first paragraph written description requirement for the claim limitations that invoke 35 USC § 112, sixth paragraph

The office action dated 11/1/2007 included a rejection of claim 1 under 35 USC § 112, first paragraph as failing to comply with the written description requirement. A subsequent amendment overcame that rejection (by amending “clock frequency” to “operating frequency”). Applicants respectfully submit that the language of claim 1, as currently amended, continues to comply with the written description requirement.

The application as filed satisfies the 35 USC § 112, first paragraph enablement requirement for the claim limitations that invoke 35 USC § 112, sixth paragraph

Power management control block 410 is described in the application as filed at pg. 7, line 24 to pg. 8, line 2 as “hardware”, “software”, or “a combination of hardware and software”. Control systems implemented in hardware and/or software are known. In the current office action, the examiner notes that control systems are known. To wit: in the discussion of both the Fukazu and Gottman references, the examiner notes that the “microprocessor and control units constitute a means for reducing the clock frequency of the microprocessor, OR a voltage provided to the integrated circuit, in response to the temperature”, but then goes on to admit that “the reference[s] do[] not disclose the means for this purpose.” See pg. 3, line 22 to pg. 4, line 2, and pg. 4, ll. 14-17 of the current office action.

Applicants respectfully submit that one skilled in the art of known control systems, when armed with the disclosure provided in the instant application, will be able to practice the power management control block 410 in hardware, software, or any combination.

The references of record do not disclose, teach, or suggest the 35 USC § 112, sixth paragraph limitations recited in the claims

Unless an element performs the identical function specified in the claim, it cannot be an equivalent for the purposes of 35 USC § 112, sixth paragraph. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 4 USPQ2d 1737 (fed. Cir. 1987), *cert. denied*, 484 U.S. 961 (1988); See also MPEP 2184.II.

The examiner admits in the office action that the cited references “do not disclose the means for this purpose”, where “this purpose” refers to reducing a clock frequency or voltage. See pg. 4, ll. 1-2, 14-17 of the current office action. Accordingly, no equivalent has been shown to exist in the prior art.

In view of the above, applicants respectfully submit that independent claims 1 and 30 are in condition for allowance. Further, applicants respectfully submit that the pending dependent claims are in condition for allowance at least by virtue of dependency.

Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants’ attorney (952-473-8800) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-4238.

Respectfully submitted,
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